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EXAMINER
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CHANG, JON CARLTON

ART UNIT	PAPER NUMBER
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2623

DATE MAILED: 08/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/901,878

Applicant(s)

SENI ET AL.

Examiner

Jon Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 6/25/03 and 8/5/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 54-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 54-60 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 25, 2003 has been entered.

***Response to Applicants' Amendments and Arguments***

2. The amendments filed May 27, 2003, and June 25, 2003, have been made of record, but not entered. The amendment filed August 5, 2003, has been made of record and entered. Claims 1-5 and 54-60 are pending and examined in this Office Action.

Applicants' arguments have been fully considered, but they are deemed to be persuasive for at least the following reasons. Applicants argue that Capps describes a "write-anywhere device in which the handwriting input areas are not restricted to a single position of the screen." The Examiner disagrees. First, the claims do not require that the handwriting input area is "restricted to a single position of the screen". Claim 1 only requires that the predetermined area is "solely provided at a particular location of the screen." There is a difference in the two phrases. For example, a pop-up input window which would pop-up at a desired location, would not read on the first phrase,

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but would read on the second phrase. Second, Capps reads on either phrase. For example, in Capps' Fig.2, the note area 54a is displayed on power up (column 5, lines 42-43), and is in a single, fixed, particular position on the screen (Fig.2).

### ***Claim Objections***

3. Claims 1 and 57 are objected to because of the following informalities:

In claim 1, in the last clause, which starts, "handwriting recognition circuitry is...", the word "is" should be removed.

In claim 1, in the second clause, which starts, "a predetermined area...", the phrase, "smaller than less than" should be corrected.

In claim 57, line 2, "span" should be changed to --spans--.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,367,453 to Capps et al. (hereinafter "Capps").

As to claim 1, Capps discloses a hand-held electronic apparatus having a small housing for ease of transport thereof and to contain control circuitry for running different applications therewith (Figs. 1 and 2; column 1, lines 24-27), the apparatus comprising:

a touch-enabled screen on the housing having a predetermined size for receiving and displaying information (Fig.2, element 52);

a predetermined area of the screen smaller than the predetermined size of the screen (Fig.2, note area 54a and/or 54b, is smaller than the predetermined size of the screen 52, e.g., the area between the header 56a and icons which are just above the silkscreened area 60; column 5, lines 42-44) on which handwriting is recognized (Fig.2), the predetermined area being solely provided at a particular location of the screen and configured to receive (Fig.4a; column 8, line 23) and display handwritten input (Fig.4a; column 8, line 24); and

an input device which cooperates with the screen and underlying circuitry for use in inputting handwriting only in the predetermined screen area and selecting application operations displayed on the remainder of the screen to provide the input device with distinct functions based on where the device is used on the screen (Fig.2, element 38); and

handwriting recognition circuitry configured for recognizing single and multiple character words handwritten on the predetermined screen area (column 8, line 26).

As to claim 3, Capps discloses the apparatus of claim 1 wherein the handwriting recognition circuitry is configured to display a predetermined number of output words each having an underlying value associated therewith indicative of the probability of

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recognition accuracy thereof based on the input handwritten word, the output words being ordered from words having highest to least recognition accuracy probabilities (column 8, lines 60-64; column 9, lines 43-45).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Capps and U.S. Patent 5,682,439 to Beernink et al. (hereinafter "Beernink").

With regard to claim 2, Capps discloses the apparatus of claim 1 wherein the handwriting recognition circuitry is configured to display a predetermined number of

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output words that are ordered by the circuitry based on likelihood of matching the input handwritten word (column 8, lines 58-64), the output words being displayed in a menu of word choices (Fig.6a).

Capps teaches that a user can selectively display the menu of output words (column 7, lines 58-61; column 8, lines 48-49). Since the words in the menu can be displayed at will, by choice of the user, Capps' invention can display the words in the menu each time a word is handwritten in the predetermined screen area.

If the claim were to be interpreted to mean that the words are displayed automatically for every word, this is considered obvious over Capps' disclosure, when considering the teachings of Beernink. Beernink teaches a pop-up corrector (e.g., Fig.5, element 168) similar to that provide by Capps. Beernink further teaches that a user can invoke the pop-up corrector using the stylus (column 10, lines 52-54) in manner similar to that of Capps, or it can be invoked automatically by the software itself (column 10, lines 54-58). Eliminating the need for user intervention in Capps' invention and providing it with the capability to display the words automatically offers the inherent advantage of assuring the user of more accurate word input, while alleviating the user from the tediousness of having to repetitively perform manual display of the words. It would therefore have been obvious to one of ordinary skill in the art to modify Capps' invention according to Beernink.

As to claim 4, Capps discloses that the output words include one word having the highest value amongst the displayed output words, but does not disclose a predetermined threshold recognition level that is compared to a confidence level for said

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one word such that if the confidence level exceeds the threshold recognition level the one word is used in the application that is active without requiring user intervention, and if the confidence level does not exceed the threshold recognition level user selection is required from amongst the output words for use in the active application. However, this is taught by Beernink (column 10, lines 56-61; note Beernink teaches that the correction list is invoked if the recognition probability does not exceed a predefined threshold, implying that the user would then need to make a selection). It would have been obvious to one of ordinary skill in the art to modify Capps according to Beernink because this would allow for the automatic invocation of the correction list, thereby relieving the user of having to manually invoke it.

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Capps and U.S. Patent 5,754,686 to Harada et al. (hereinafter "Harada").

As to claim 5, Capps discloses the apparatus of claim 3 wherein the handwriting recognition circuitry includes at least one dictionary database and having a user interface therewith for inputting changes to the database (column 10, lines 51-56). Capps does not disclose that the inputting is based on low recognition values for handwritten words indicative of the absence of the words from the database. However, it is well known to input changes to a database based on low recognition values as evidenced by Harada (column 2, lines 1-13). It would have been obvious to modify Capps' invention according to Harada's teaching because this would allow new words,



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i.e., those not currently in the database, to be added to the database for subsequent recognition, effectively extending the flexibility of the invention.

10. Claims 54-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Capps and U.S. Patent 5,838,302 to Kuriyama et al. (hereinafter "Kuriyama").

As to claim 54, Capps discloses a hand-held electronic apparatus comprising:  
a touch-enabled screen configured to receive and display information (Fig.2, element 52); and

a circuit (Fig.1) configured to provide an area for receiving and displaying handwritten data (Fig.4a), to recognize single and multiple character words (Fig.4b) based on the handwritten data received and displayed in the area, and to restrict the area to a particular location of the touch-enabled screen (Fig.2, note area 54a and/or 54b, within the screen 52, e.g., the area between the header 56a and icons which are just above the silkscreened area 60; column 5, lines 42-44).

Capps does not disclose that the area is a window. However, windows for receiving and displaying handwritten data are well known in the art. For example, Kuriyama teaches a hand-held electronic apparatus (Fig.1), which includes a touch-enabled screen (Fig.1, element 14), which receives and displays handwritten data in a window (Figs.3B and 3C, area P), wherein the window is restricted to a particular location of the screen (Figs.3B and 3C).

Kuriyama's arrangement provides more user friendliness for some since the window is in a fixed location, and there would therefore be no ambiguity as to where the handwriting should be written. Therefore, it would have been obvious to modify Capps' invention according to Kuriyama's teaching.

Claim 55, Kuriyama teaches that the window is smaller in size than the touch-enabled screen (Figs.3B and 3C).

Claim 56, Kuriyama teaches that the particular location of the window is a lower portion of the touch-enabled screen (Figs.3B and 3C).

Claim 57, Kuriyama does not disclose that the window occupies less than one third of the touch-enabled screen and spans a width of the touch-enabled screen. However, this is not considered to patentably distinguish the claim from the prior art. To have the window a particular size is a decision to be made based on designer preference. A designer would utilize a particular window size to accommodate a particular application, or achieve a particular look, for example.

Claim 58, Kuriyama teaches that the window includes at least one action icon (Figs.3B or 3C, elements 31, 32, 33 or 34).

Claim 59, Kuriyama teaches the window always appears at a specific location of the touch-enabled screen when activated (Figs.3B or 3C).


Claim 60, Kuriyama teaches that the window may appear on, and disappear from, the touch enabled screen (note it disappears in the key-input process, Fig.3A, and appears in the handwriting input process, Figs.3B and 3C).

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jon Chang whose telephone number is (703)305-8439. The examiner can normally be reached on M-F 8:00 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703)308-6604. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9314 for regular communications and (703)872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

  
Jon Chang  
Primary Examiner  
Art Unit 2623

Jon Chang  
August 7, 2003